# MiSP Weather Data Assessment L1

Name _____   Date _____

You worked with data in this unit that showed that as altitude increases, air temperature decreases. When air cools as it rises, it will eventually reach its dew point temperature, water vapor will condense (become liquid water), and clouds (instead of dew) will form. Data for this has been collected so that a person can estimate the height of cumulus clouds if the air temperature and dew point at the Earth's surface are known.

This chart shows the height of clouds when it is 30°C with various dew points:

Dew Point °C	Height of Cumulus Clouds (meters)
0	3800
3	3400
6	3000
9	2600
12	2300
15	1900
18	1500
21	1100

The data was graphed with a best-fit line:
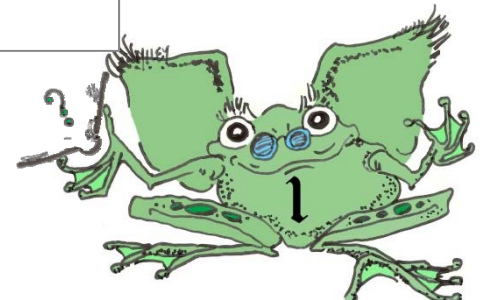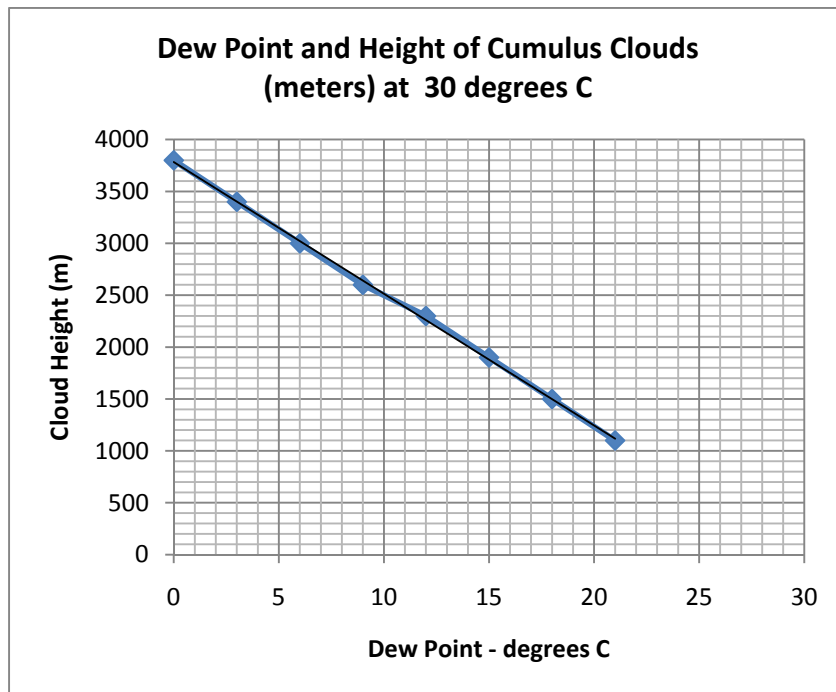
1a. What happens to cloud height as dew point increases?

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_____

1b. If clouds form at 2300 meters on a day when the surface air temperature is 30°C and the dew point is 12°C, what is the air temperature at 2300 meters?

_____

1c. Why does cloud height change as dew point increases?

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_____

_____

_____

2. Predict the cloud height when the dew point (air temperature 30°C) is:

27°C _____

10°C _____